

Appl. No. 10/719,639
Amdt. dated July 24, 2006
Reply to Office Action of March 23, 2006

REMARKS/ARGUMENTS

Claims 19, 20, and 31 have been canceled so as not to delay allowance of the present application. Claims 1-9 were previously withdrawn. Claims 32 and 33 are currently amended. Claims 10-19, 21-30, and 32-36 are presented for consideration.

By way of the Office Action mailed March 23, 2006, the Office rejected claims 10-36 under 35 U.S.C. § 102/103 as allegedly being anticipated or obvious to one of ordinary skill in the art at the time the invention was made, and thus unpatentable over U.S. Patent Number 4,902,553 to Hwang et al ("Hwang"). This rejection is respectfully traversed to the extent that it may apply to the presently presented claims.

Rejection of Claims 10, 12, 13, 15, and 25

Claims 10, 12, 13, 15, and 25 were rejected by the Office under 35 U.S.C. §§ 102/103 as being anticipated or obviated under Hwang, stating that Hwang teaches a polymeric mix and an additive material that is partially soluble in the polymeric matrix. The Office further states that the additive material lies on top of the polymeric matrix. The applicant's respectfully disagree with the latter statement.

Hwang discloses a disposable article such as a diaper having a rattle-free, liquid impermeable, vapor impermeable, microporous, polymeric film having pores defining passages extending therethrough, the passages being partially filled with a rattle-reducing additive material (see, abstract). The pore size of the film is 0.1 to 100 microns (column 6, lines 39-40). The additive material is partially soluble in the polymeric matrix with results in the unique properties of the Hwang invention (column 4, lines 13-14). When the additive materials are used, the sheet materials are more elastic than the starting sheet material (Id. at lines 15-17). The polymeric matrix may be a crystallizable thermoplastic polymer of a polyolefenic nature, e.g. high-density polyethylene, LLDP, polypropylene and other modified polyolefins (Id. at lines 29-34). The preferred rattle-reducing additive comprises and ambient-temperature

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liquid-saturated aliphatic which acts as both a pore-forming and rattle-reducing additive (Id. at lines 45-48). . Suitable rattle-reducing additive materials are saturated compounds such as mineral oil, glycerin, petroleum jelly, low molecular-weight polypropylene, polyethylene oxide, soft carbowax, and the like—mineral oil is preferred (Id. at lines 22-28). It is desirable to have part of the aliphatic compound dissolved in the polymeric matrix to plasticize the polymer, give the resulting films good hand and rattle reducing characteristics (Id. at lines 48-51).

In stark contrast to Hwang, the present invention is a layered material as shown in at least FIG. 1 of the present application. The reduced-noise composite material 100 includes a substrate 101 and a noise reducing coating material 102. The substrate can be made of any material suitable for use in a disposable personal care device, including a polymeric substance. Polyolefin films are well known to perform effectively as liquid impermeable barrier sheets in such devices. (See, page 5 line 25 to page 6, line 15). The noise-reducing coating materials is applied via slot-coat, swirl spray, meltblown spray, or the like; in particular embodiments, the noise-reducing coating material is applied so as to substantially completely coat a target region of a surface of the substrate to which it is applied (page 6, lines 25-29). "The phrase 'substantially completely coat' . . . means to create a continuous, complete, unbroken coating subject to occasional uncoated portions as a result of surface imperfections as are well known to those skilled in the art.'" (See, page 6, line 26 to page 7, line 1.)

There is no showing or suggestion in Hwang that the additive material is a layer that lies on the top of the matrix. Instead, Hwang teaches at column 3, lines 32-38 that the material is a microporous polymeric matrix material having pores partially filled with a rattle-reducing additive material capable of partially dissolving in the polymeric matrix. Because amended independent claims 10 and 21 clearly indicate that the noise-reducing composite materials is in effect a continuous, complete, and unbroken layer that substantially and completely coats

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the substrate, not every element of the claimed invention is disclosed in the reference (see support for amendment on page 9, lines 27-30 of the specification). As such, because Hwang neither shows nor suggests a continuous layer of additive material, applicant's respectfully request that the rejection to claims 10, 12, 13, 15, and 25, be withdrawn.

Rejection of Claims 11, 22, and 33

Claims 11, 22 and 33 are also rejected in light of Hwang, the Office asserting that the components would have been mixed at one time and the amount of additive that precipitated would cover at least 75% because when the material cooled, adding that there would be a substrate where portions of undissolved additive would appear on the substrate surface. Because amended independent claims 10 and 21 clearly indicate that the noise-reducing composite materials is a continuous, complete, unbroken layer that substantially and completely coats a target area, not every element of the claimed invention is disclosed in the reference (see support for amendment on page 9, 27-30). As such, because Hwang neither shows nor suggests such a layer of additive material, applicant's respectfully request that the rejection to claims 11, 22, and 33, be withdrawn.

Rejection of Claims 14 and 26

Claims 14 and 26 are also rejected in light of Hwang, the Office asserting that the polyolefenic adhesive holding a separate layer of the additive would be an obvious alternative. The present invention does not claim a three-layer material as the Office suggests, or a material having any layers. By contrast, Hwang teaches a matrix comprised of components that are intermixed. Because Hwang does not teach or suggest a material having a polyolefenic layer, Applicants respectfully request that the rejection to claims 14 and 26 be withdrawn.

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Rejection of Claims 16 and 28

The Office further rejected Claims 16 and 28 under Hwang asserting that Hwang teaches that the polyolefin is a crystallizable thermoplastic material and thus, would form a substantially non-elastomeric film (citing, column 4, lines 29-35). The Applicants respectfully disagree, pointing out the remainder of the paragraph at column 4, lines 35-42, which states: "It is preferred to use polypropylene, either in its pure form or a modified polypropylene, with a molecular weight in the range of 50,000 to 500,000 with a melt flow index ranging from 0.1 to 8. *If the molecular weight is lower than 50,000, the film will have poor stretchability resulting in orientation problems and a resulting poor vapor permeability.*" (Italics added.) Thus, Hwang teaches that a crystallizable thermoplastic material is not necessarily non-elastomeric. Because stretch is designed in Hwang, the patent actually *teaches away* from using a substantially non-elastomeric film. As such, applicant's respectfully request that the rejection to claims 16 and 28 be withdrawn.

Rejection of Claims 17, 29 and 36

The Office further rejected Claims 17, 29 and 36 under Hwang asserting that Hwang teaches an absorbent pad wherein the rattle-reducing film is adhered to a polyethylene/PET nonwoven bicomponent web (citing, column 11, lines 18-20). Applicants respectfully disagree with this assertion.

Hwang fails to teach a film comprised of layers that are adhered to one another. In contrast, Hwang teaches a microporous film having passages partially filled with a noise-reducing additive. As such, because Hwang neither shows nor suggests a film comprised of layers that are adhered to one another, Applicants respectfully request that the rejection to claims 17, 29, and 36, be withdrawn.

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Rejection of Claims 18 and 30

The Office further rejected Claims 18 and 30 under Hwang asserting that Hwang teaches a polyolefenic material for the polymer matrix, stating that Hwang teaches either polyethylene or polypropylene. Applicants respectfully disagree with this assertion. While Hwang does disclose a matrix that can be made of a polymer, Hwang fails to show or suggest a layered film, as noted in the arguments against the rejection of the claims from which claims 18 and 30 depend. As such, Applicants respectfully request that the rejection to claims 18 and 30 be withdrawn.

Rejection of Claims 19

The Office further rejected Claims 19 under Hwang asserting that Hwang teaches that the rattle-free film is liquid impermeable, therefore, the polymer matrix is liquid impermeable (citing, column 3, lines 27-30). This rejection deemed moot due to the cancellation of claim 19. This claim has been canceled to further of allowance of the present application without delay.

Rejection of Claims 20 and 31

The Office further rejected Claims 20 and 31 under Hwang asserting that Hwang teaches that the rattle-reducing film is microporous, and that the film is vapor permeable but liquid impermeable (citing, column 3, lines 27-30), thereby concluding that Hwang teaches the film is non-apertured. This rejection deemed moot due to the cancellation of claims 20 and 31. These claims have been canceled to further allowance of the present application without delay.

Rejection of Claims 21 and 27

The Office further rejected Claims 21 and 27 under Hwang asserting that Hwang teaches an absorbent article comprising a top sheet, an absorbent core, and a backsheet; said backsheet

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being comprised of a rattle-reducing film further comprised of a thermoplastic polymer matrix mixed with an additive. The Office referred to the rejections set forth for claim [10]. Applicants respectfully disagree with this assertion.

As noted in the arguments against the rejection of claims 10, 12, 13, 15, 24, and 25, Hwang fails to show or suggest a layered film having a noise-reducing layer that substantially completely coats a substrate. The additive in Hwang does not form a layer. For the same reason set forth for claim 10, Applicants respectfully request that the rejection of claims 21 and 27 be withdrawn.

Rejection of Claims 32 through 35

The Office further rejected Claims 32 through 35 under Hwang using the arguments set forth for rejecting claims 1 and 21, and including the following statement: Hwang teaches that the rattle-reducing film has a decibel level of less than 44 db at 1 KHz against a background noise level of 43 db (see column 9, Table 1). Hwang further teaches that if the decibel level of the film is below the level in an office environment, i.e. below 43 dB value, the crinkling is undetectable. Thus, the film taught by Hwang has its own noise level of 1 dB at 1 kHz when the background noise is removed, which is less than a noise level of 30 dB at 2 kHz and 28 dB at 4 kHz.

Hwang fails to show or suggest at least one element of amended claim 32. Specifically, claim 32 has been amended to include a noise reducing layer which substantially completely coats a target region of the first surface of the outer cover of the disposable absorbent article. As argued previously with respect to at least claim 10, Hwang does not show or suggest a film comprised of layers. For at least this reason, applicant's request that the rejection to amended claim 32 and corresponding dependent claims 33-35 be withdrawn.


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The undersigned may be reached at: 920-721-4043.

Respectfully submitted,

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I, Barbara D. Miller, hereby certify that on **July 24, 2006** this document is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (571) 273-8300.

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